

## 2. Remarks

### a. *The § 102 and § 103 Rejections*

In rejecting the claims the Examiner states that the amount of phosphorous "in instant claims 1, 6 and 11 reads on zero which suggests said P element could be eliminated from the claimed solder alloy." Applicant respectfully disagrees with the Examiner because as a matter of plain interpretation of the English language, these claims positively require phosphorous. Any other interpretation is simply incorrect

Specifically: claim 1 requires "phosphorous present in an amount of not more than 0.01%." The word "present" has specific meaning and mandates that the claimed alloy include phosphorous. An alloy having no phosphorous would not fall within the bounds of this claim.

In claim 6, the solder is prepared by mixing tin, silver, indium, copper and phosphorous, and the proportion of phosphorous in the solder is not more than 0.01%. This method requires that phosphorous be included in the alloy mix. One could not follow this claimed method without including phosphorous in the mix.

Finally, in claim 11 the solder is formed by combining tin, silver, indium, copper and phosphorous.

The language used in these claims mandates that phosphorous is present in the alloy, and as such, the amount of phosphorous in these claims cannot read on zero.

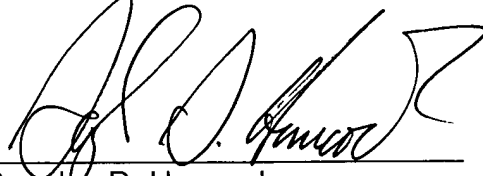
None of the prior art references anticipates the amended claims and there is no combination of references that would render the claims obvious. As detailed in the inventor's declaration submitted by Applicants, and in the comments already of record in the application, the claimed alloy is an advantageous selection of alloys put together in very specific proportions that provide very advantageous properties. None of the prior art references, either alone or in combination, renders the claimed alloys either anticipated or obvious.

Moreover, every claim except claim 1 is amended to incorporate a property of the alloy, namely, the Young's Modulus. Young's Modulus is a commonly used parameter expressing the ratio of the stress to strain of a material in MPa units. In this case, as set forth in Figure 7, the claimed alloy (Alloy 349) exhibits a Young's

Modulus that is superior to all other lead-free alloys tested, and which is closest of the lead-free solders to the conventional lead-containing solder. Independent claims 6 and 11 are amended to incorporate this parameter, as is dependent claim 4.

The claims pending in the application are believed to be in condition for allowance, and such action is requested. If any issues remain outstanding the Examiner is requested to contact the undersigned by telephone.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D. D. Hancock", written over a horizontal line.

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